

**CS 6905 – Fall 2017**  
**Software Engineering**  
**Assignment # 3 - Online Voting System**

**Submitted by:**

**Group: # 4**

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## Use Cases

1. Create election
2. Vote
3. Nominate for Election
4. Voter Research
5. Release results
6. Update Vote
7. Freeze Election
8. Update Documents
9. Update Voting Policy
10. Nominee Update Profile
11. Register
12. Login

In first iteration we will be implementing the following:

1. Create election
2. Vote
3. Nominate for Election
4. Update Vote
5. Update Voting Policy
6. Nominee Update Profile

We were able to do all these 6 use cases in addition to these we were able to do these use cases as well:

1. Register
2. Login

## Code Compilation

Please run “`npm run start`” in the compiled zip file or the full zip file to run the NodeJS server. The server will automatically connect to the database in mlab.com. Everything given in the screenshots below works as expected.

Database connection: `mongo ds141175.mlab.com:41175/cs6905 -u student voting_system`

If you run this in a command prompt and you have MongoDB installed, this will connect to the database at mlab.com and you will be able to see all the records there.

## Test Accounts

All accounts password is “**test**” . All the new nominations that are created have the password “**test**” as well. New accounts for nominations only gets created when that email account doesn’t exists already. If it exists then that is nominated.

**Election Official:** [official@voting.com](mailto:official@voting.com)

**Candidates:** [candidate1@voting.com](mailto:candidate1@voting.com), [candidate2@voting.com](mailto:candidate2@voting.com), [candidate3@voting.com](mailto:candidate3@voting.com), [candidate4@voting.com](mailto:candidate4@voting.com), [candidate5@voting.com](mailto:candidate5@voting.com), [candidate6@voting.com](mailto:candidate6@voting.com)

**Voters:** [voter1@voting.com](mailto:voter1@voting.com), [voter2@voting.com](mailto:voter2@voting.com), [voter3@voting.com](mailto:voter3@voting.com), [voter4@voting.com](mailto:voter4@voting.com), [voter5@voting.com](mailto:voter5@voting.com), [voter6@voting.com](mailto:voter6@voting.com), [voter7@voting.com](mailto:voter7@voting.com), [voter8@voting.com](mailto:voter8@voting.com), [voter9@voting.com](mailto:voter9@voting.com)

## Database Schema

### User Collection Schema

```
{
  "id": 1234567890,
  "email": "dummy@test.ca",
  "name": "Test User",
  "phone": "+1-322-555-5555",
  "address": "123 st street",
  "password": "$#2a#3asfdfsfdfsfdfsfdfs",
  "role": "electionOfficer",
  "securityQuestions": [
    {
      "question": "when were you born?",
      "answer": "Jan 1 1900"
    }
  ],
  "isVerified": true,
  "isEnabled": true,
  "incorrectLoginTries": 4,
  "lastActiveAt": "Sat Apr 08 2017 14:58:21 GMT-0400 (Eastern Daylight Time)",
  "createdAt": "Sat Apr 08 2017 14:58:21 GMT-0400 (Eastern Daylight Time)",
  "modifiedAt": "Sat Apr 08 2017 14:58:21 GMT-0400 (Eastern Daylight Time)"
}
```

### Election Collection Schema

```
{
  "_id": 213454,
  "name": "Provincial Election - NL",
  "winningStrategy": "Winner Takes All",
  "dateFrom": "Thu Oct 13 2017 00:00:00 GMT-0230 (Newfoundland Daylight Time)",
  "dateTo": "Thu Oct 31 2018 00:00:00 GMT-0230 (Newfoundland Daylight Time)",
  "isDistrictElections": true,
  "numberOfDistricts": 5,
  "candidatesStrategy": "predefined",
}
```


```
"usersStrategy": "registeredUsers",
"userObjectConditions": "",
"candidates": [
  {
    "candidateId": 234455,
    "numOfVotes": 123,
    "isApproved": false
  }
],
"voters": [
  {
    "voterId": 234455,
    "hasVoted": false,
    "votedFor": 3456634
  }
]
}
```

## Screenshots

### Login and Registration

Voting System

Login



Email

Password


Sign in

☐ Remember me      [Need help?](#)

[Create an account](#)

Voting System

Register



Email

Password

Sign up

☐ Remember me      [Need help?](#)

[Already have an account? Login](#)



## Profile

Update

**Profile last accessed on:** Saturday, November 4, 2017, 3:55:12 PM Newfoundland Daylight Time

**Profile created at:** Saturday, November 4, 2017, 3:55:12 PM Newfoundland Daylight Time

**Profile last modified on:** Saturday, November 4, 2017, 6:39:27 PM Newfoundland Daylight Time

### General

**Name \***

Voter 4

**Email**

voter4@voting.com

**Password**

Password

**Verify Password**

Verify Password

### Address

**Address**

1 Elizabeth Ave

**City \***

St. John's

**Country \***



Canada

**Postal Code \***

A1Z1Z1



## Election Official Perspective

 Voting System Election Official Dashboard Create Election 

### Create Election

Create

#### General

**Election Name**

**Winning Strategy**

**Date From**  **Date To**

☐ District Elections?

#### Candidates

☒ Nomination Based ☐ Predefined Candidates ☐ Both

## Update Election

Update

### General

**Election Name**

NL Election

**Winning Strategy**

Winner Takes All ▼

**Date From**

01-Nov-2017

**Date To**

14-Jun-2018

☐ District Elections?

### Candidates

☒ Nomination Based ☐ Predefined Candidates ☐ Both

## Current Elections

**NL Election**

Winning Strategy  
**winnerTakesAll**

Candidates strategy  
**nomination**

Nov 1, 2017 --- Jun 14, 2018

Edit Election

## Future Elections

**MUNSU Elections**

Winning Strategy  
**proportional**

Candidates strategy  
**predefined**

Nov 26, 2017 --- Nov 30, 2017

Edit Election

**Election - BC**

Winning Strategy  
**winnerTakesAll**

Candidates strategy  
**nomination**

Jan 10, 2018 --- Mar 20, 2018

Edit Election

**Election - Quebec**

Winning Strategy  
**proportional**

Candidates strategy  
**predefined**

Jan 15, 2018 --- Mar 20, 2018

Edit Election

**Election - NB**



## Election Details

### General

**Name:** NL Election  
**Winning Strategy:** winnerTakesAll  
**From:** Nov 1, 2017  
**To:** Jun 14, 2018  
**District Elections?** false

### Candidates

**Candidate Strategy?** nomination

Current Candidates

Number of Users Voted: **4**

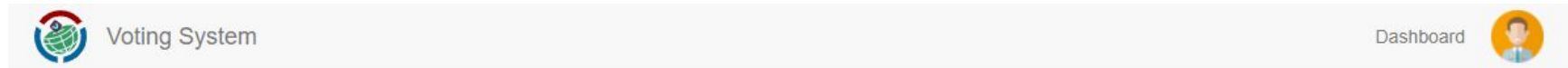
Name	Email	Approval	Vote *
Candidate 1	candidate1@voting.com	approved	<a href="#">Vote</a>
Candidate 2	candidate2@voting.com	approved	<a href="#">Vote</a>
Candidate 3	candidate3@voting.com	approved	<a href="#">Vote</a>
Candidate 4	candidate4@voting.com	pending <a href="#">Approve</a> <a href="#">Reject</a>	
Candidate 5	candidate5@voting.com	pending <a href="#">Approve</a> <a href="#">Reject</a>	
Candidate 6	candidate6@voting.com	rejected <a href="#">Approve</a>	

\* Candidate needs to be approved before vote can be casted to that candidate.

### Nomination

[Nominate a candidate](#)

## Voter Perspective



### Current Elections

**NL Election**

Winning Strategy  
**winnerTakesAll**  
Candidates strategy  
**nomination**

Nov 1, 2017 --- Jun 14, 2018

### Future Elections

**MUNSU Elections**

Winning Strategy  
**proportional**  
Candidates strategy  
**predefined**

Nov 26, 2017 --- Nov 30, 2017

**Election - BC**

Winning Strategy  
**winnerTakesAll**  
Candidates strategy  
**nomination**

Jan 10, 2018 --- Mar 20, 2018

**Election - Quebec**

Winning Strategy  
**proportional**  
Candidates strategy  
**predefined**

Jan 15, 2018 --- Mar 20, 2018

## Election Details

### General

**Name:** NL Election  
**Winning Strategy:** winnerTakesAll  
**From:** Nov 1, 2017  
**To:** Jun 14, 2018  
**District Elections?** false

### Candidates

**Candidate Strategy?** nomination

**GREAT! You voted for Candidate 2** [Change Vote](#)

We will email you when the results are published!

Current Candidates

Number of Users Voted: **4**

Name	Email	Approval	Vote *
Candidate 1	candidate1@voting.com	approved	
<b>Candidate 2</b>	<b>candidate2@voting.com</b>	<b>approved</b>	✓
Candidate 3	candidate3@voting.com	approved	
Candidate 4	candidate4@voting.com	pending	
Candidate 5	candidate5@voting.com	pending	
Candidate 6	candidate6@voting.com	rejected	

\* Candidate needs to be approved before vote can be casted to that candidate.

Nomination

[Nominate a candidate](#)

## URLs

Github URL

<https://github.com/harisbarki/CS6905-Online-Voting>